

Docket No.: 4252-0120PUS1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

In re Patent Application of:  
Syuhei OKUDE et al.

Application No.: 10/584,412

Confirmation No.: 9068

Filed: April 6, 2007

Art Unit: 1794

For: POLARIZING PLATE PROTECTIVE FILM,  
REFLECTION PREVENTIVE POLARIZING  
PLATE AND OPTICAL PRODUCT

---

Examiner: E. A. Robinson

**LETTER SUBMITTING SIGNED DECLARATION UNDER 37 C.F.R. 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to the Amendment filed on July 11, 2008, attached hereto is the signed Declaration Under 37 CFR § 1.132 executed by Mr. Hiroshi Yakabe. An unexecuted copy of the Declaration was filed with the Amendment on July 11, 2008.

As noted in the July 11, 2008 Amendment, the following Rejections are pending:

- 1) Claims 1-7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Shoshi et al. '188 (U.S. 2003/0104188);
- 2) Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shoshi et al. '188 in view of Murakami et al. '900 (U.S. 5,681,900); and
- 3) Claims 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shoshi et al. '188 in view of Nakamura et al. '929 (U.S. 2001/0035929).

In order to further distinguish from the cited references (especially Shoshi et al '188), Applicants amended claim 1 to recite that the polarizing plate protective film comprises a low-refractive-index layer including a hollow microparticle having a shell and a cavity formed inside

the shell, wherein the cavity is completely enclosed by the shell. Shoshi et al. '188 teach a polarizing plate protective film, wherein the layer that the Examiner equates with the inventive low-refractive-index layer includes a hollow microparticle which is porous and is not formed of a cavity completely enclosed by a shell, as presently claimed.

Attached hereto is the Declaration which is submitted to show that even if a *prima facie* case of obviousness were to exist, which it does not, the inventive polarizing plate protective film which comprises a low-refractive-index layer including a hollow microparticle having a shell and a cavity formed inside the shell, wherein the cavity is completely enclosed by the shell, has unexpectedly superior properties when compared to polarizing plate protective films which comprise a low-refractive-index layer including a porous microparticles as disclosed by Shoshi et al. '188.

In the Declaration is described the preparation of polarizing plate protective films 3A to 3E having a low-refractive-index layer including a hollow microparticle having a shell and a cavity formed inside the shell, wherein the cavity is completely enclosed by the shell, as presently claimed. This is distinct from the polarizing plate protective film 3H which was prepared with a low-refractive-index layer including porous microparticle, such as those taught by Shoshi et al. '188.

As shown in Table 1 of the Declaration, the polarizing plate protective films 3A to 3E of Examples 1 to 5 showed: i) a low refractive index of the low-refractive-index layer and exhibited a low reflectance; ii) excellent scratch resistance; and iii) a small warping rate.

The properties are inferior for polarizing plate protective film 3H which was prepared with a low-refractive-index layer including porous microparticle, such as those taught by Shoshi et al. '188. As shown in Table 1, the haze value of the polarizing plate protective film 3H using the porous silica microparticles was remarkably increased after the steel wool test as compared with that of the polarizing plate protective films 3A-3E using the hollow silica isopropanol dispersion sol. It was found that the scratch resistance of the polarizing plate protective film 3H was inferior to that of the polarizing plate protective film 3A-3E.

As such, the polarizing plate protective film having an excellent antireflection effect and scratch resistance could be obtained by using the hollow silica microparticles, as presently claimed.

As noted in the Declaration, it is Mr. Yakabe's opinion that the presently claimed polarizing plate protective film which comprises a low-refractive-index layer including a hollow microparticle having a shell and a cavity formed inside the shell, wherein the cavity is completely enclosed by the shell, has unexpectedly superior properties to polarizing plate protective films which comprise a low-refractive-index layer including a porous microparticles such as those disclosed by Shoshi et al. '188. It is also Mr. Yakabe's opinion that the presently claimed polarizing plate protective film which comprises a low-refractive-index layer including a hollow microparticle having a shell and a cavity formed inside the shell, wherein the cavity is completely enclosed by the shell, is not made obvious by Shoshi et al. '188 Murakami et al. '900 and Nakamura et al. '929.

As such, withdrawal of the rejections is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Reg. No. 43,575 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: July 31, 2008

Respectfully submitted,

By   
Garth M. Dahlen, Ph.D.  
Registration No.: 43,575  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant